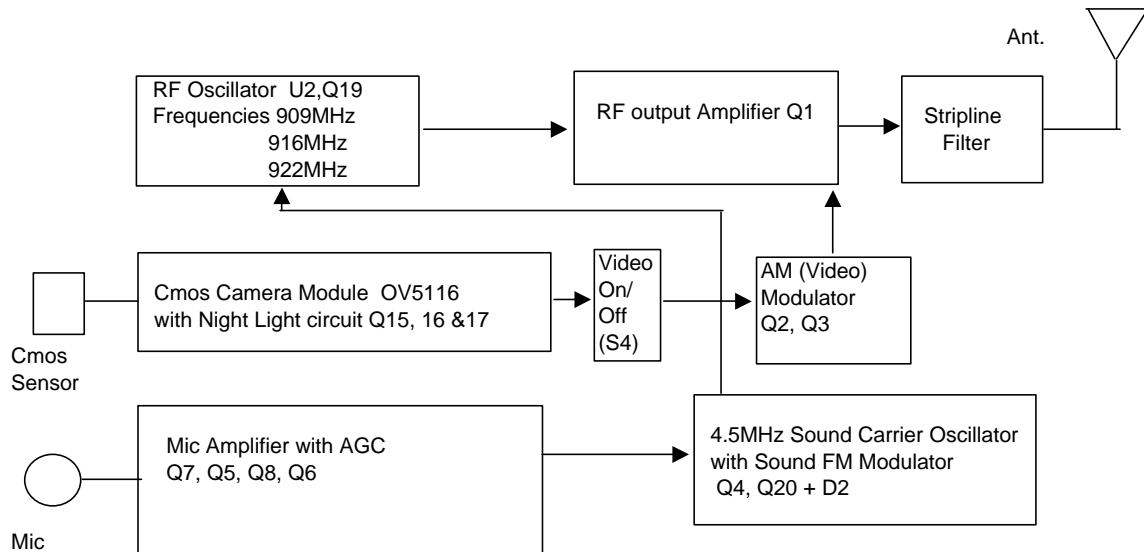


Model : 48018 Block Diagram

Date : 10-Jan-2000



Operational Sequence:

The model 48018 is a video baby monitor transmitter, which operates at 902-928MHz.

The signal format follows the regular NTSC TV video signal, which is the video signal is modulated in AM, and the sound signal is in 4.5MHz FM apart from the main carrier.

The circuitry consists of a RF integrated circuit (U2 RF2504) which forms the main RF oscillator. The oscillation frequency is mainly controlled by a coaxial resonator L2.

The varistor D1 is connected parallelly to the resonator, and its capacitance can vary the resonance frequency of coaxial resonator slightly so that three different frequencies can be generated for three channels.

The picture is picked up by a CMOS Camera Module OV5116, and the IC will turn the picture into an analog video composite signal. The Module also contains 12 pcs of Infra-red LEDs for automatic night-light purpose. The video composite signal will go through Q2 and Q3 and then be modulated into the carrier in AM format.

The sound will be picked up by a microphone, and then go through an AGC amplifier Q5, Q6, Q7, Q8, and then be modulated in a 4.5MHz sound IF carrier by Q4 and Q20. Finally, this sound IF carrier will be combined into the main carrier as well.

There is a Video On/Off switch provided on the circuitry.

In OFF position, the video modulation will be disabled and only the sound carrier output will function.

Finally, the RF signal is coupled to a spiral antenna through a stripline transformer/filter.